

ABSTRACT OF THE DISCLOSURE

5 In an automatic gain control amplifier AGCa, an RF automatic gain controller 2 controls the gain of a radio frequency signal *Srf*. A frequency converter 3, 4 frequency-converts the radio frequency signal *Srfa* into an intermediate frequency signal *Sifa*. An IF automatic gain controller 5 controls the gain of the intermediate frequency *Sifa*. A level detector *LDa* detects a signal level of the gain-controlled intermediate frequency signal

10 *Sifa*, and generates a level signal *SLa*. An automatic gain control signal generator SGa, SGb separately controls, based the level signal *SLa*, *SLb*, the RF automatic gain controller 2 and the IF automatic gain controller 5.